

IN THE CLAIMS

Amend the claims as follows.

Claims 1-47 (Canceled).

48. (new). A method for the screening of compounds that modulate calcium release-activated channel (Icrac) activity, comprising:

- a. contacting a test compound and a selective calcium channel activator that causes selective depletion of intracellular calcium stores, with a population of calcium channel expressing cells, said cells further containing a reporter construct comprising a reporter gene under the control of a NFAT-inducible promoter, and
- b. determining the activity of the test compound on a calcium release-activated channel by measuring the reporter gene expression in said cells.

49. (new) The method of claim 48, wherein, in step a), the selective calcium channel activator is an Icrac activator and the calcium channel expressing cells are Icrac expressing cells.

50. (new) The method of claim 49, wherein, in step a), the cells are contacted with an Icrac activator in the absence of a Protein Kinase C activator.

51. (new) The method of claim 49, wherein the Icrac activator is a product or a treatment that selectively depletes intracellular calcium stores.

52. (new) The method of claim 51, wherein the Icrac activator is thapsigargin.

53. (new) The method of claim 48, wherein the reporter gene is a β -lactamase gene.

54. (new) The method of claim 48, wherein the NFAT-inducible promoter is a transcriptional promoter comprising a NFAT-responsive region.

55. (new) The method of claim 54, wherein the NFAT-inducible promoter comprises one or several copies of the nucleotide sequence of SEQ ID N° 1.

56. (new) The method of claim 55, wherein the NFAT-inducible promoter comprises between 2 and 8 copies of the nucleotide sequence of SEQ ID N° 1.

57. (new) A method for the screening of compounds that modulate calcium release-activated channel (Icrac) activity comprising :

- (a) contacting a test compound and a selective, direct or indirect, Icrac activator that causes selective depletion of intracellular calcium stores with a population of Icrac expressing cells, said cells further containing a reporter construct comprising a reporter gene under the control of a NFAT-inducible promoter, said reporter gene encoding a product that hydrolyses a substrate,
- (b) contacting the cells of a) with a substrate of the reporter gene, and
- (c) determining the activity of the test compound on the calcium release-activated channel by assessing the hydrolysis of the substrate in said cells.

58. (new) The method of claim 57, wherein the reporter gene is a β -lactamase gene under the control of a NFAT-inducible promoter and the substrate is the substrate of β -lactamase.

59. (new) The method of claim 57, wherein, in step b), the substrate is a ratiometric substrate.

60. (new) The method of claim 59, wherein the substrate is CCF2-AM.
61. (new) The method of claim 48, wherein the population of cells comprises a culture of blood cells selected from lymphocytes, mast cells, and dendritic cells.
62. (new) The method of claim 48, wherein the population of cells comprises between 10^3 and 10^6 cells.
63. (new) The method of claim 48, wherein the test compound and the Icrac activator are contacted simultaneously with the cells.
64. (new) The method of claim 48, wherein at least two test compounds are contacted in parallel with the cell population.
65. (new) The method of claim 64 wherein at least 10 compounds are contacted in parallel.
66. (new) The method of claim 64 wherein at least 50 compounds are contacted in parallel.
67. (new) The method of claim 48, wherein step a) is performed in a multi-well plate.
68. (new) The method of claim 48, wherein the contact time between the test compound and the Icrac activator with the cells is from 2 to 6 hours.
69. (new) The method of claim 48, wherein the cell population is incubated in a medium having a calcium concentration of at least 1 mM .

70. (new) The method of claim 48, for screening a compound that blocks the activation of Icrac, wherein the method comprises selecting a test compound that reduces reporter gene expression in said cells.

71. (new) The method of claim 48, for screening a compound that modulates the Icrac-mediated calcium inflow.

72. (new) A method according to claim 48, wherein said cells are blood cells which contain a reporter construct comprising a reporter gene under the control of a NFAT-inducible promoter.

73. (new). A method according to claim 48, wherein said cells are lymphocytes which contain a reporter construct comprising a reporter gene under the control of a NFAT-inducible promoter.

74. (new) A method according to claim 48, wherein said cells are mast cells which contain a reporter construct comprising a reporter gene under the control of a NFAT-inducible promoter.

75. (new) A method according to claim 48, wherein said cells are a population of rodent immune cells which contain a reporter construct comprising a reporter gene under the control of a NFAT-inducible promoter.

76. (new) The method of claim 75, wherein said population is a population of murine or rat immune cells.

77. (new) The method of claim 75, wherein said population comprises at least 80 % of cells expressing the Icrac channel.

78. (new) A method according to claim 48, wherein said cells are a population of human immune cells which contain a reporter construct comprising a reporter gene under the control of a NFAT₂-inducible promoter.

79. (new) The method of claim 78, wherein said population comprises at least 80 % of cells expressing the Icrac channel

80. (new) A kit for use in a method according to claim 48, comprising a cell population as defined in claim 1, a support, and a substrate.

81. (new). A blood cell for use in a method according to claim 48, wherein said cell contains a reporter construct comprising a reporter gene under the control of a NFAT-inducible promoter.

82. (new) A lymphocyte for use in a method according to claim 48, wherein said lymphocyte contains a reporter construct comprising a reporter gene under the control of a NFAT-inducible promoter.

83. (new) A mast cell for use in a method according to claim 48, wherein said cell contains a reporter construct comprising a reporter gene under the control of a NFAT-inducible promoter.

84. (new) A population of rodent immune cells for use in a method according to claim 48, wherein said cells comprises a reporter construct comprising a reporter gene under the control of a NFAT-inducible promoter.

85. (new) The cell population of claim 81, wherein said population comprises at least 80% of cells expressing an Icrac channel.

86. (new) A population of human immune cells for use in a method according to claim 48, wherein said population comprises a reporter construct comprising a reporter gene under the control of a NFAT-inducible promoter.

87. (new) The cell population of claim 86, wherein said population comprises at least 80% of cells expressing an Icrac channel.